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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,253	01/31/2002	William W. Bannister	08688-040002	3573

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EXAMINER
SINES, BRIAN J

ART UNIT	PAPER NUMBER
1743	4

DATE MAILED: 03/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

mk-4

Office Action Summary	Application No.	Applicant(s)	
	10/066,253	BANNISTER ET AL.	
	Examiner	Art Unit	
	Brian J. Sines	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Reading et al. (U.S. Pat. No. 5,346,306 A). Regarding claims 1 and 15, Reading et al. anticipates a method for detecting the presence of an energetic material in a sample in which the presence of the energetic material is unknown, wherein the method comprises the steps of: heating the sample; measuring the heat flow between the sample and its surrounding environment; and analyzing the measured heat flow between the sample and its surrounding environment, wherein an exothermal peak in the measured heat flow indicates the presence of the energetic material in the sample (see entire reference). Regarding claims 2 and 16, Reading et al. teach the use of differential scanning calorimetry (DSC) (col. 1, lines 1 – 49). Regarding claim 6, Reading et al. teach a heating step comprising the steps of heating the sample from about room temperature to a temperature of at least 200 °C (see figure 2a).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3 – 5, 10, 11, 17 – 19 and 23 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reading et al. in view of Corrigan et al. (U.S. Pat. No. 5,109,691 A). Reading et al. are silent to the teaching of collecting sample particles from air samples. Reading et al. teach that differential scanning calorimetry is common in the art of sample analysis using thermal analysis techniques. Reading et al. teach that their disclosed invention is not limited to differential thermal techniques, but to non-thermal differential analysis techniques as well, such as in the use of another driving variable, such as a wavelength of incident radiation (col. 1, lines 39 – 65). Corrigan et al. do teach an explosives detection screening system which collects particulate matter from air samples using filters (col. 4, lines 13 – 33). Corrigan et al. do teach the use of laser photoacoustic detection (col. 1, lines 51 – 62). Therefore, it would have been obvious to one of ordinary skill in the art to utilize a collection system for collecting particles from air samples, as taught by Corrigan et al., in order to evaluate the samples using differential scanning calorimetry methodology and system, as taught by Reading et al., in order to effectively evaluate particulate samples

dispersed in the air. Regarding claims 4 and 5, Corrigan et al. also teach that the explosives detection system is used in airports (col. 1, lines 19 – 35). Regarding claims 10 – 12, Corrigan et al. teach that contraband substances may be detected (col. 1, lines 1 – 62). Regarding claim 14, Reading et al. teach that a sample may be identified by comparison to a reference thermogram (col. 1, lines 10 – 38). Therefore, it would have been obvious to one of ordinary skill in the art to use the apparatus and methodology as taught by Reading et al. in view of Corrigan et al. in the detection of contraband materials.

Claims 7, 8, 13 and 20 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reading et al. in view of Jones et al. Reading et al. is silent to the teacing of using an anaerobic environment for analysis. Jones et al. do teach the use of an anaerobic environment in the analysis of samples using oxygen-free dry nitrogen (see Measurements section, p. 538). Therefore, it would have been obvious to one of ordainry skill in the art to use an anaerobic environment, as taught by Jones et al., in performing differential scanning calorimetry analysis in which such an environment would facilitate optimal measurements. Jones et al. teach a heating step comprising the steps of heating the sample to a temperature of at least 350 °C or 550 °C (see figures 1 – 4).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reading et al. teach an apparatus and method for modulated differential scanning calorimetry.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines whose telephone number is (703) 305-0401. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

BJS
December 30, 2002

Jill Warden
Supervisory Patent Examiner
Technology Center 1700